is the risk to an individual standing at 235' from the detonation or at 200', 300', 400'...

Response: See response to question 11 and the following table is provided.

Table 1
QUALITATIVE RISK VERSUS
DISTANCE AWAY FROM DETONATION POINT[A]

Detonation Point	1/600 Distance	Maximum Fragment Distance
Point Removal of OE	Increased Risk. A person (6 ft tall, 1 ft wide) taking no evasive action has a 1% probability of being struck by a hazardous fragment	Minimal risk. A person (6 ft tall, 1 ft wide) taking no evasive action has less than a 1% probability (but not zero) of being struck by a hazardous fragment

[A] Source: DOD 6055.9-STD, DOD Ammunition and Explosive Safety Standards, July 1999.

4. Also please provide information on fragment velocity and striking energy at the select distances included in the table. Since these figures will be somewhat technical please provide an example and/or illustration of what each fragment velocity and striking energy means in laymen's terms.

Response: Striking energy is related to fragment mass and velocity ($E=1/2\ mv^2$). Velocity is dependent on distance traveled and the drag coefficient. The drag coefficient is dependent on fragment weight, shape and velocity.

A hazardous fragment is one with a striking energy of 58 ft-lbs. The 58 ft-lbs criteria was approved by DDESB in April 1971 and is based on a report by the Medical Department of the Army using empirical data from WWI, WWII and the Korean war as well as experimental test data (reference (a)).

In laymen's terms, a 20 lb. bowling ball dropped on your foot from 3 feet high will impact with 60 ft-lb of energy and thus deliver the energy of a hazardous fragment. Figures may be developed upon request of the City of Benicia.